## (19) World Intellectual Property Organization

International Bureau



## HERBIT BENDERH IN BERLIN BERLIN BERLIN BERLIN BENDE EIN BERLIN BERLIN BERLIN BENDE BERLIN BERLIN BERLIN BERLIN

(43) International Publication Date 12 May 2005 (12.05.2005)

**PCT** 

(10) International Publication Number WO 2005/042562 A2

(51) International Patent Classification7:

**C07K** 

(21) International Application Number:

PCT/US2004/036428

(22) International Filing Date:

1 November 2004 (01.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/516,167

30 October 2003 (30.10.2003) US

(71) Applicant (for all designated States except US): THE UNIVERSITY OF MASSACHUSETTS [US/US]; Amherst, MA 01003-4510 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): CARPINO, Louis, A. [US/US]; 11 Mount Pleasant, Amherst, MA 01002 (US). XIA, Jusong [CN/US]; 509 Bernndary Court, Moore, SC 29369 (US). ZHANG, Chongwu [CN/US]; 503 Yarrow Circle, Dayton, NJ 08810 (US). SFERDEAN, Calin, Dan [RO/US]; 286 Sunset Avenue, 308 Prince House, Amherst, MA 01003 (US).
- (74) Agent: GROLZ, Edward, W.; Scully, Scott, Murphy & Presser, 400 Garden City Plaza, Garden City, NY 11530 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

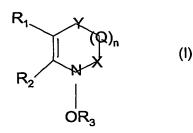
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

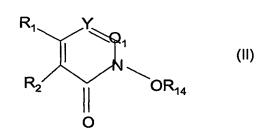
## Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NEW COUPLING AGENTS FOR PEPTIDE SYNTHESIS





(57) Abstract: The present invention is directed to compounds of the formula (I) and (II) or salts thereof or N-oxides and their use in peptide synthesis.